Most Frequently Occurring Classifications of Patents Returned

From A Search of 09889171 on May 08, 2003

Original Classifications

4 700/252

3 73/628

3 700/259

2 294/86.4

2 318/568.1

2 318/568.18

2 369/44.28

2 378/79

Cross-Reference Classifications

8 901/9

6 901/47

5 219/124.34

5 901/42

3 73/652

3 73/862.637

3 118/500

3 294/902

3 318/567

3 318/568.13

3 318/568.15

3 318/568.16

3 318/569

3 369/30.17

3 369/44.28

3 369/44.29

3 700/245

3 700/259

3 901/2

3 901/3

3 901/46

2 72/240

2 73/862.043

2 73/862.046

2 73/862.541

2 264/540

2 294/86.4

2 318/561

2 318/568.19

2 318/573

2 318/577

2 356/620

2 369/275.3

2 369/275.4

2 369/43

2 414/730

2 425/532

2 700/45

2 700/58

2 700/59

2 700/63

2 700/88

2 901/10

2 901/14

2 901/15

2 901/16

2 901/43

2 901/5

2 901/50

Combined Classifications

8 901/9

6 219/124.34

6 700/259

6 901/47

5 369/44.28

5 700/252

5 901/42

4 294/86.4

4 318/567
4 318/568.13
3 73/628
3 73/652
3 73/862.637
3 118/500
3 294/902
3 318/568.1
3 318/568.15
3 318/568.16
3 318/568.18
3 318/569
3 369/275.4
3 369/30.17
3 369/44.29
3 700/245
3 700/88
3 901/2
3 901/3
3 901/46
2 29/740
2 72/10.7
2 72/240
2 73/862.043
2 73/862.046
2 73/862.541
2 204/298.15
2 264/540
2 318/561
2 318/568.19
2 318/573
2 318/577
2 356/399
2 356/620
2 369/111
2 369/275.3
2 369/43

2 378/79

2 414/730

2 425/531

2 425/532

2 700/247

2 700/249

2 700/45

2 700/58

2 700/59

2 700/63

2 901/10

2 901/14

2 901/15

2 901/16

2 901/43

2 901/5

2 901/50

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8  901/9        (0 OR, 8 XR)
       Class   901 :  ROBOTS
       901/2          ARM MOTION CONTROLLER
       901/9          .Closed loop (sensor feedback controls arm
                        movement)


6  219/124.34   (1 OR, 5 XR)
       Class   219 :  ELECTRIC HEATING
       219/50         METAL HEATING (E.G., RESISTANCE HEATING)
       219/121.11     .By arc
       219/124.1      ..With automatic positioning of arc
       219/124.22     ...In response to work shape
       219/124.34     ....By using probe means


6  700/259      (3 OR, 3 XR)
       Class   700 :  DATA PROCESSING:  GENERIC CONTROL SYSTEMS OR
                        SPECIFIC APPLICATIONS
       700/90         SPECIFIC APPLICATION, APPARATUS OR PROCESS
       700/245        .Robot control
       700/258        ..Having particular sensor
       700/259        ...Vision sensor (e.g., camera, photocell)


6  901/47       (0 OR, 6 XR)
       Class   901 :  ROBOTS
       901/46         SENSING DEVICE
       901/47         .Optical


5  369/44.28    (2 OR, 3 XR)
       Class   369 :  DYNAMIC INFORMATION STORAGE OR RETRIEVAL
       369/43         WITH SERVO POSITIONING OF TRANSDUCER ASSEMBLY
                        OVER TRACK COMBINED WITH INFORMATION SIGNAL
PROCESSING
       369/44.11      .Optical servo system
       369/44.27      ..Initialization/start-up or changing modes of
                        system
       369/44.28      ...While track jumping or crossing


5  700/252      (4 OR, 1 XR)
       Class   700 :  DATA PROCESSING:  GENERIC CONTROL SYSTEMS OR
                        SPECIFIC APPLICATIONS
       700/90         SPECIFIC APPLICATION, APPARATUS OR PROCESS
       700/245        .Robot control
       700/250        ..Specific enhancing or modifying technique
                        (e.g., adaptive control)
       700/252        ...Interpolation


5  901/42       (0 OR, 5 XR)
       Class   901 :  ROBOTS
       901/30         END EFFECTOR
       901/41         .Tool
       901/42         ..Welding


4  294/86.4     (2 OR, 2 XR)
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             Class    294 :   HANDLING:  HAND AND HOIST-LINE IMPLEMENTS
             294/86.4        GRAPPLE


4  318/567       (1 OR, 3 XR)
             Class    318 :   ELECTRICITY:  MOTIVE POWER SYSTEMS
             318/560         POSITIONAL SERVO SYSTEMS (E.G.,
                                SERVOMECHANISMS)
             318/567         .Program- or pattern-controlled systems


4  318/568.13    (1 OR, 3 XR)
             Class    318 :   ELECTRICITY:  MOTIVE POWER SYSTEMS
             318/560         POSITIONAL SERVO SYSTEMS (E.G.,
                                SERVOMECHANISMS)
             318/567         .Program- or pattern-controlled systems
             318/568.1       ..With program recording or composing means
             318/568.11      ...Multifunction manipulator (i.e., Robot)
             318/568.13      ....With particular program teaching method


3   73/628       (3 OR, 0 XR)
             Class    073 :   MEASURING AND TESTING
             73/570          VIBRATION
             73/584          .By mechanical waves
             73/596          ..Beamed
             73/627          ...By reflected wave
             73/628          ....Having plural sonic type transmitters or
                                receivers tranducers


3   73/652       (0 OR, 3 XR)
             Class    073 :   MEASURING AND TESTING
             73/570          VIBRATION
             73/649          .Sensing apparatus
             73/652          ..With inertia element


3   73/862.637   (0 OR, 3 XR)
             Class    073 :   MEASURING AND TESTING
             73/862          DYNAMOMETERS
             73/862.381      .Responsive to force
             73/862.621      ..By measuring elastic deformation
             73/862.636      ...Specific type of elastic member
             73/862.637      ....Flexible element (e.g., beam, plate, or
                                web)


3  118/500       (0 OR, 3 XR)
             Class    118 :   COATING APPARATUS
             118/500         WORK HOLDERS, OR HANDLING DEVICES


3  294/902       (0 OR, 3 XR)
             Class    294 :   HANDLING:  HAND AND HOIST-LINE IMPLEMENTS
             294/902         GRIPPING ELEMENT


3  318/568.1     (2 OR, 1 XR)
             Class    318 :   ELECTRICITY:  MOTIVE POWER SYSTEMS
             318/560         POSITIONAL SERVO SYSTEMS (E.G.,
                                SERVOMECHANISMS)
             318/567         .Program- or pattern-controlled systems
             318/568.1       ..With program recording or composing means
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3  318/568.15    (0 OR, 3 XR)
        Class   318 :  ELECTRICITY:  MOTIVE POWER SYSTEMS
        318/560         POSITIONAL SERVO SYSTEMS (E.G.,
                            SERVOMECHANISMS)
        318/567         .Program- or pattern-controlled systems
        318/568.1       ..With program recording or composing means
        318/568.11      ...Multifunction manipulator (i.e., Robot)
        318/568.15      ....With particular interpolation means

3  318/568.16    (0 OR, 3 XR)
        Class   318 :  ELECTRICITY:  MOTIVE POWER SYSTEMS
        318/560         POSITIONAL SERVO SYSTEMS (E.G.,
                            SERVOMECHANISMS)
        318/567         .Program- or pattern-controlled systems
        318/568.1       ..With program recording or composing means
        318/568.11      ...Multifunction manipulator (i.e., Robot)
        318/568.16      ....With particular sensing device

3  318/568.18    (2 OR, 1 XR)
        Class   318 :  ELECTRICITY:  MOTIVE POWER SYSTEMS
        318/560         POSITIONAL SERVO SYSTEMS (E.G.,
                            SERVOMECHANISMS)
        318/567         .Program- or pattern-controlled systems
        318/568.1       ..With program recording or composing means
        318/568.11      ...Multifunction manipulator (i.e., Robot)
        318/568.17      ....With multimode control (e.g., course-fine,
                            position-force, etc.)
        318/568.18      .....Including velocity control

3  318/569        (0 OR, 3 XR)
        Class   318 :  ELECTRICITY:  MOTIVE POWER SYSTEMS
        318/560         POSITIONAL SERVO SYSTEMS (E.G.,
                            SERVOMECHANISMS)
        318/567         .Program- or pattern-controlled systems
        318/569         ..Digital or numerical systems

3  369/275.4     (1 OR, 2 XR)
        Class   369 :  DYNAMIC INFORMATION STORAGE OR RETRIEVAL
        369/272         STORAGE MEDIUM STRUCTURE
        369/275.1       .Optical track structure (e.g., phase or
                            diffracting structure, etc.)
        369/275.4       ..Pit/bubble/groove structure specifies

3  369/30.17     (0 OR, 3 XR)
        Class   369 :  DYNAMIC INFORMATION STORAGE OR RETRIEVAL
        369/24.01       INFORMATION LOCATION OR REMOTE OPERATOR
                            ACTUATED CONTROL
        369/30.01       .Selective addressing of storage medium (e.g.,
                            programmed access)
        369/30.03       ..Of optical storage medium
        369/30.1        ...Transducer movement control using recorded
                            information indicative of location of information
(e.g.,
                            track address)
        369/30.17       ....Transducer velocity control

3  369/44.29     (0 OR, 3 XR)
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        Class   369 :  DYNAMIC INFORMATION STORAGE OR RETRIEVAL
        369/43          WITH SERVO POSITIONING OF TRANSDUCER ASSEMBLY
                            OVER TRACK COMBINED WITH INFORMATION SIGNAL
PROCESSING
        369/44.11       .Optical servo system
        369/44.27       ..Initialization/start-up or changing modes of
                            system
        369/44.29       ...Servo loop gain/switching control


  3  700/245        (0 OR, 3 XR)
        Class   700 :  DATA PROCESSING:  GENERIC CONTROL SYSTEMS OR
                            SPECIFIC APPLICATIONS
        700/90          SPECIFIC APPLICATION, APPARATUS OR PROCESS
        700/245         .Robot control


  3  700/88         (1 OR, 2 XR)
        Class   700 :  DATA PROCESSING:  GENERIC CONTROL SYSTEMS OR
                            SPECIFIC APPLICATIONS
        700/1           GENERIC CONTROL SYSTEM, APPARATUS OR PROCESS
        700/86          .Having preparation of program
        700/88          ..Playback


  3  901/2          (0 OR, 3 XR)
        Class   901 :  ROBOTS
        901/2           ARM MOTION CONTROLLER


  3  901/3          (0 OR, 3 XR)
        Class   901 :  ROBOTS
        901/2           ARM MOTION CONTROLLER
        901/3           .Teaching system


  3  901/46         (0 OR, 3 XR)
        Class   901 :  ROBOTS
        901/46          SENSING DEVICE


  2  ·29/740        (1 OR, 1 XR)
        Class   029 :  METAL WORKING
        29/700          MEANS TO ASSEMBLE OR DISASSEMBLE
        29/729          .Means to assemble electrical device
        29/739          ..Means to fasten electrical component to
                            wiring board, base, or substrate
        29/740          ...Chip component


  2  72/10.7        (1 OR, 1 XR)
        Class   072 :  METAL DEFORMING
        72/6.1          WITH USE OF CONTROL MEANS ENERGIZED IN RESPONSE
                            TO ACTIVATOR STIMULATED BY CONDITION SENSOR
        72/6.2          .Metal deforming by use of roller or
                            roller-like tool element
        72/8.1          ..Including plural sensors or sensor responsive
                            to comparison between plural conditions
        72/10.1         ...Sensing tool or tool-linked part
        72/10.7         ....Sensing roll gap


  2  72/240         (0 OR, 2 XR)
        Class   072 :  METAL DEFORMING
        72/199          BY USE OF ROLLER OR ROLLER-LIKE TOOL-ELEMENT
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72/237          .With carrier for roller-couple or tool-couple

72/240          ..With variation of bite of roller-couple
                   during deformation

2   73/862.043  (0 OR, 2 XR)
    Class   073 :  MEASURING AND TESTING
    73/862          DYNAMOMETERS
    73/862.041     .Responsive to multiple loads or load
                       components
    73/862.042     ..Along or about mutually orthogonal axes
    73/862.043     ...Three dimensional (e.g., x, y, z axes)

2   73/862.046  (0 OR, 2 XR)
    Class   073 :  MEASURING AND TESTING
    73/862          DYNAMOMETERS
    73/862.041     .Responsive to multiple loads or load
                       components
    73/862.046     ..Transducer array (e.g., columns and rows)

2   73/862.541  (0 OR, 2 XR)
    Class   073 :  MEASURING AND TESTING
    73/862          DYNAMOMETERS
    73/862.381     .Responsive to force
    73/862.541     ..Combined

2   204/298.15  (1 OR, 1 XR)
    Class   204 :  CHEMISTRY:  ELECTRICAL AND WAVE ENERGY
    204/193         APPARATUS
    204/298.01     .Coating, forming or etching by sputtering
    204/298.02     ..Coating
    204/298.15     ...Specified work holder

2   264/540     (0 OR, 2 XR)
    Class   264 :  PLASTIC AND NONMETALLIC ARTICLE SHAPING OR
                       TREATING: PROCESSES
    264/500         DIRECT APPLICATION OF FLUID PRESSURE
                       DIFFERENTIAL TO PERMANENTLY SHAPE, DISTORT, OR
SUSTAIN WORK

    264/523        .Including application of internal fluid
                       pressure to hollow finite length parison to expand
same
                       into conformity with female mold part
    264/540        ..Including extrusion

2   318/561     (0 OR, 2 XR)
    Class   318 :  ELECTRICITY:  MOTIVE POWER SYSTEMS
    318/560         POSITIONAL SERVO SYSTEMS (E.G.,
                       SERVOMECHANISMS)
    318/561        .Adaptive or optimizing systems including
                       "bang-bang" servos

2   318/568.19  (0 OR, 2 XR)
    Class   318 :  ELECTRICITY:  MOTIVE POWER SYSTEMS
    318/560         POSITIONAL SERVO SYSTEMS (E.G.,
                       SERVOMECHANISMS)
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         318/567        .Program- or pattern-controlled systems
         318/568.1       ..With program recording or composing means
         318/568.11      ...Multifunction manipulator (i.e., Robot)
         318/568.19      ....With particular coordinate transformation
                            means


    2  318/573        (0 OR, 2 XR)
         Class  318 :  ELECTRICITY:  MOTIVE POWER SYSTEMS
         318/560         POSITIONAL SERVO SYSTEMS (E.G.,
                            SERVOMECHANISMS)
         318/567         .Program- or pattern-controlled systems
         318/569         ..Digital or numerical systems
         318/570         ...Contouring systems
         318/573         ....With interpolating means


    2  318/577        (0 OR, 2 XR)
         Class  318 :  ELECTRICITY:  MOTIVE POWER SYSTEMS
         318/560         POSITIONAL SERVO SYSTEMS (E.G.,
                            SERVOMECHANISMS)
         318/567         .Program- or pattern-controlled systems
         318/575         ..Multiple axes analog systems
         318/576         ...Nonmechanical line, seam or edge followers

         318/577         ....Optical or photoelectric line followers


    2  356/399        (1 OR, 1 XR)
         Class  356 :  OPTICS:  MEASURING AND TESTING
         356/399         BY ALIGNMENT IN LATERAL DIRECTION


    2  356/620        (0 OR, 2 XR)
         Class  356 :  OPTICS:  MEASURING AND TESTING
         356/614         POSITION OR DISPLACEMENT
         356/615         .Position transverse to viewing axis
         356/620         ..Special mark or target on object


    2  369/111        (1 OR, 1 XR)
         Class  369 :  DYNAMIC INFORMATION STORAGE OR RETRIEVAL
         369/99          SPECIFIC DETAIL OF INFORMATION HANDLING PORTION
                            OF SYSTEM
         369/100         .Radiation beam modification of or by storage
                            medium
         369/111         ..Spiral or helical track


    2  369/275.3      (0 OR, 2 XR)
         Class  369 :  DYNAMIC INFORMATION STORAGE OR RETRIEVAL
         369/272         STORAGE MEDIUM STRUCTURE
         369/275.1       .Optical track structure (e.g., phase or
                            diffracting structure, etc.)
         369/275.3       ..Track data format/layout


    2  369/43         (0 OR, 2 XR)
         Class  369 :  DYNAMIC INFORMATION STORAGE OR RETRIEVAL
         369/43          WITH SERVO POSITIONING OF TRANSDUCER ASSEMBLY
                            OVER TRACK COMBINED WITH INFORMATION SIGNAL
PROCESSING


    2  378/79         (2 OR, 0 XR)
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         Class   378 :  X-RAY OR GAMMA RAY SYSTEMS OR DEVICES
         378/1          SPECIFIC APPLICATION
         378/70         .Diffraction, reflection, or scattering
                            analysis
         378/71         ..Diffractometry
         378/79         ...Analyte support

  2  414/730       (0 OR, 2 XR)
         Class   414 :  MATERIAL OR ARTICLE HANDLING
         414/680        VERTICALLY SWINGING LOAD SUPPORT
         414/729        .Grab
         414/730        ..Programmable or condition responsive means
                            controls grab operation

  2  425/531       (1 OR, 1 XR)
         Class   425 :  PLASTIC ARTICLE OR EARTHENWARE SHAPING OR
                            TREATING: APPARATUS
         425/522        FEMALE MOLD AND MEANS TO SHAPE PARISON DIRECTLY
                            BY INTERNAL FLUID PRESSURE, (E.G., BLOW MOLD, ETC.)
         425/528        .Including means to prepare parison
         425/531        ..Parison severing means

  2  425/532       (0 OR, 2 XR)
         Class   425 :  PLASTIC ARTICLE OR EARTHENWARE SHAPING OR
                            TREATING: APPARATUS
         425/522        FEMALE MOLD AND MEANS TO SHAPE PARISON DIRECTLY
                            BY INTERNAL FLUID PRESSURE, (E.G., BLOW MOLD, ETC.)
         425/528        .Including means to prepare parison
         425/532        ..Parison forming extruder

  2  700/247       (1 OR, 1 XR)
         Class   700 :  DATA PROCESSING:  GENERIC CONTROL SYSTEMS OR
                            SPECIFIC APPLICATIONS
         700/90         SPECIFIC APPLICATION, APPARATUS OR PROCESS
         700/245        .Robot control
         700/247        ..Plural controlled devices or plural nonvision
                            controlling devices

  2  700/249       (1 OR, 1 XR)
         Class   700 :  DATA PROCESSING:  GENERIC CONTROL SYSTEMS OR
                            SPECIFIC APPLICATIONS
         700/90         SPECIFIC APPLICATION, APPARATUS OR PROCESS
         700/245        .Robot control
         700/247        ..Plural controlled devices or plural nonvision
                            controlling devices
         700/249        ...Plural processors

  2  700/45        (0 OR, 2 XR)
         Class   700 :  DATA PROCESSING:  GENERIC CONTROL SYSTEMS OR
                            SPECIFIC APPLICATIONS
         700/1          GENERIC CONTROL SYSTEM, APPARATUS OR PROCESS
         700/28         .Optimization or adaptive control
         700/44         ..Feed-forward (e.g., predictive)
         700/45         ...Combined with feedback

  2  700/58        (0 OR, 2 XR)
         Class   700 :  DATA PROCESSING:  GENERIC CONTROL SYSTEMS OR
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                          SPECIFIC APPLICATIONS
         700/1            GENERIC CONTROL SYSTEM, APPARATUS OR PROCESS
         700/56           .Digital positioning (other than machine tool)

         700/57           ..Alignment or registration
         700/58           ...Having position marking


  2  700/59          (0 OR, 2 XR)
         Class    700 :  DATA PROCESSING:  GENERIC CONTROL SYSTEMS OR
                             SPECIFIC APPLICATIONS
         700/1            GENERIC CONTROL SYSTEM, APPARATUS OR PROCESS
         700/56           .Digital positioning (other than machine tool)

         700/57           ..Alignment or registration
         700/59           ...Having optical sensing (e.g., image
                             projection)


  2  700/63          (0 OR, 2 XR)
         Class    700 :  DATA PROCESSING:  GENERIC CONTROL SYSTEMS OR
                             SPECIFIC APPLICATIONS
         700/1            GENERIC CONTROL SYSTEM, APPARATUS OR PROCESS
         700/56           .Digital positioning (other than machine tool)

         700/61           ..Multiple axis motion or path control
         700/63           ...Including velocity or acceleration control


  2  901/10          (0 OR, 2 XR)
         Class    901 :  ROBOTS
         901/2            ARM MOTION CONTROLLER
         901/9            .Closed loop (sensor feedback controls arm
                             movement)
         901/10           ..Sensor physically contacts and follows work
                             contour

  2  901/14          (0 OR, 2 XR)
         Class    901 :  ROBOTS
         901/14           ARM MOVEMENT (SPATIAL)

  2  901/15          (0 OR, 2 XR)
         Class    901 :  ROBOTS
         901/14           ARM MOVEMENT (SPATIAL)
         901/15           .Jointed arm

  2  901/16          (0 OR, 2 XR)
         Class    901 :  ROBOTS
         901/14           ARM MOVEMENT (SPATIAL)
         901/16           .Cartesian (X-Y-Z arm)

  2  901/43          (0 OR, 2 XR)
         Class    901 :  ROBOTS
         901/30           END EFFECTOR
         901/41           .Tool
         901/43           ..Spray painting or coating

  2  901/5           (0 OR, 2 XR)
         Class    901 :  ROBOTS
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        901/2           ARM MOTION CONTROLLER
        901/3           .Teaching system
        901/5           ..Machine driven lead through

2   901/50          (0 OR, 2 XR)
        Class   901 :  ROBOTS
        901/50          MISCELLANEOUS
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5204814 99
5276777 99
5565749 99
6404849 99
5390288 80
5540821 80
6111930 80
5438418 76
4427158 73
4546940 73
4552397 73
4617502 73
4831549 73
4852018 73
4937848 73
4941106 73
4987356 73
5006999 73
5264178 73
5288224 73
5314722 73
5426625 73
5553500 73
5587470 73
5600627 73
5604314 73
5796610 73
5832415 73
5974908 73
6000523 73
6018507 73
6055218 73
6091695 73
RE37065 73
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4281342 70

4283930 70

4317571 70

4343167 70

4365326 70

4409650 70

4421450 70

4445184 70

4456378 70

4480280 70

4487127 70

4491719 70

4507594 70

4525918 70

4535695 70

4541062 70

4540924 70

4541193 70

4543699 70

4547665 70

4553035 70

4572011 70

4579058 70

4580350 70

4590577 70

4595481 70

4596076 70

4600869 70

4601637 70

4604561 70

4607358 70

4613803 70

4615023 70

4633383 70

4633059 70

4633414 70

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4764048 70

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4796598 70
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4815780 70
4817697 70
4817954 70
4819514 70
4821673 70
4828263 70
4839876 70
4843711 70
4844624 70
4845834 70
4850783 70
4860436 70
4866362 70
4867207 70